# Water Utility Enterprise Report

## April 1997

Santa Clara Valley Water District

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Santa Clara Valley Water District

5750 ALMADEN EXPRESSWAY
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TELEPHONE (408) 265-2600
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AN AFFIRMATIVE ACTION EMPLOYER

April 1, 1997

Board of Directors:

This letter formally submits the recommended water rates for 1997-98 and the supporting report required by the District Act. The Water Utility remains in sound financial condition, and staff recommends no change in water rates for the upcoming year.

Financial results for the current fiscal year, 1996-97, will differ considerably from budgeted figures. The Water Utility was able to take advantage of special opportunities to increase groundwater storage, pay down accumulated debt, and boost local water conservation. Spurred by an increase in treated water sales, revenues are expected to increase to $97 million, compared to budgeted revenues of $91 million. Capital expenditures are expected to remain at the budgeted level of $10 million, and planned operating expenditures are expected to be at the budgeted level of $75 million. However, the Board approved using reserves to fund extraordinary outlays of $20 million to pay accumulated costs of participation in the federal Central Valley Project (CVP) and $3.2 million to support installation of ultra-low flow toilets in San Jose. Thus, operating outlays are estimated to increase by $23 million to $98 million. The net result is that Water Utility reserves, rather than increase by $5 million, will decrease by $11 million and end the year at $100 million.

As fiscal year 1997-98 approaches, the utility is entering a period of increasing capital outlays to meet anticipated regulations, while it is also planning to implement its recently completed Integrated Water Resources Plan (IWRP). Concurrently, the District is planning to make further payments to retire obligations for the federal CVP.

Water Utility revenues are projected at $95 million for 1997-98, while ordinary operating expenditures are projected to rise by $3 million to $78 million because of higher outlays for imported water. Furthermore, extraordinary operating outlays are projected to total $47 million. This includes plans to reduce accumulated CVP obligations, using $40 million of reserves previously set aside for this purpose and plans to implement the IWRP, using $7 million from the Supplemental Water Supply Appropriation for potential water banking agreements or other elements identified in the IWRP.

In 1997-98, capital outlays are projected to double to $21 million. These will be funded using non-operating revenues and $4 million from reserves for capital improvements. Total use of reserves in 1997-98 is projected to total $51 million: $4 million for capital; $40 million for CVP payments; and $7 million for IWRP implementation. Total Water Utility reserves are projected to decline from $100 million at the beginning of the year to $49 million in June 1998. The large outlays and associated reduction in reserves will not adversely affect the financial strength of the Water Utility because the reserves were set aside for exactly such purposes.

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By drawing on reserves to fund the extraordinary expenditures discussed above, the Water Utility's projected revenues from water sales and property taxes remain available to cover projected operations expenditures. At expected levels of water consumption, the District's current water rates will generate sufficient funds for 1997-98 operations and capital without raising water rates. Consequently, staff recommends that water rates in the North County (Zone W-2) remain at current levels for fiscal year 1997-98. If the recommended water charges are adopted by the Board, it will be the fifth consecutive year without a rate increase in the North County.

In the South County (Zone W-5), staff estimates that revenues and costs will be in approximate balance this fiscal year. For 1997-98, expected decreases in operating expenditures will largely offset increased costs to amortize recently completed capital projects. Current projections of South County finances in 1997-98 show a deficit, but the magnitude of the deficit is less than cumulative surpluses in 1995-96 and 1996-97. Consequently, staff recommends that water rates in the South County (Zone W-5) remain unchanged for fiscal year 1997-98.

The report which follows describes the District water supply and demand situation and outlines the financial conditions underlying the recommended rates.

Stanley M. Williams
General Manager

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# SANTA CLARA VALLEY WATER DISTRICT

# WATER UTILITY ENTERPRISE REPORT

Prepared by

John Ryan

and

Susan Oneal

Under the Direction of

Nai Hsueh
Executive Project Manager

APRIL 1997

**DISTRICT BOARD OF DIRECTORS**

| | | | |
|---|---|---|---|
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| **Joe Judge** | **District 2** | **Sig Sanchez, Chair** | **At Large** |
| **Robert W. Gross** | **District 3** | **Tony Estremera** | **At Large** |
| **Larry Wilson** | **District 4** | | |

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# PREFACE

This is the twenty-six annual report on the status of the District's Water Utility Enterprise. In accordance with Section 26.5 of the District's Act, the District annually prepares a written report on the District's activities on the protection and augmentation of the water supplies of the District. As required by the District Act, this report provides information on the present and future water requirements of the County, the water supply available to the District, future capital improvement and maintenance and operating requirements, financing methods, and the water charges by zone for agricultural water and nonagricultural water.

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# I. Rate Recommendation

**Recommended Water Rates for 1997-98**

Recommended water charges for fiscal year 1997-98 North and South County have been developed based on the revenues required for water utility operations and planned capital improvements in each area. The recommended rates for North County, Water Charge Zone W-2, and for South County, Water Charge Zone W-5, are unchanged from those in effect for the past 4 years. The boundaries of Zones W-2 and W-5 are shown on a map in Appendix C.

Table 1 shows the water rates in effect for fiscal years 1993-94 through 1996-97 and the recommended rates for fiscal year 1997-98. The recommendation for 1997-98 is based on both the immediate needs for the coming year as well as the desire to provide customers with stable and predictable rates over the next 5 years. The remainder of this section discusses estimated financial results for 1996-97 and a projection of 1997-98 plans. Section II describes the analyses underlying the rate recommendations in each zone. Section III discusses challenges facing the water utility.

**TABLE 1**

**SUMMARY OF WATER CHARGES**
**(Dollars per Acre-Foot)**

| | 1993-94 | 1994-95 | 1995-96 | 1996-97 | Recommended 1997-98 |
|---|---|---|---|---|---|
| Zone W-2 Municipal and Industrial | 240.00 | 240.00 | 240.00 | 240.00 | 240.00 |
| Agricultural | 43.75 | 43.75 | 43.75 | 43.75 | 43.75 |
| Contract Treated Water Surcharge | 70.00 | 70.00 | 70.00 | 70.00 | 70.00 |
| Non Contract Treated Water Surcharge | 50.00 | 50.00 | 50.00 | 30.00 | 30.00 |
| Zone W-5 Municipal and Industrial | 108.00 | 108.00 | 108.00 | 108.00 | 108.00 |
| Agricultural | 11.50 | 11.50 | 11.50 | 11.50 | 11.50 |

## Review of Current Results and Outlook for 1997-98

Table 2 shows the revenue requirements that are the basis for the recommended rates and details the split between operating and capital outlays, along with funds added to, or used from, reserves for water utility activities.

### *Revenues and Revenue Requirements*

Overall revenues of the water utility, as shown in Table 2, were approximately $91 million in 1995-96 and were budgeted at $91 million in 1996-97. Recent strengthening in the Santa Clara County economy is leading to higher water usage in the County. Strong District sales and an adjustment for unbooked revenue combine to increase expected 1996-97 revenues to $96.7 million. Revenues are projected at $94.7 million in 1997-98.

**TABLE 2**

**OVERVIEW OF WATER UTILITY REVENUE REQUIREMENTS**
**($ Millions)**

| | Actual 1995-96 | Budget 1996-97 | Estimated 1996-97 | Projected 1997-98 |
|---|---|---|---|---|
| Revenues | $90.9 | $90.6 | $96.7 | $94.7 |
| | | | | |
| Revenue Requirements | | | | |
| Operations | 75.3 | 75.5 | 98.7 | 125.0 |
| Capital Projects | 9.6 | 10.5 | 10.5 | 21.3 |
| Changes in Reserves | 6.0 | 4.6 | -12.5 | -51.6 |
| | | | | |
| Total | $90.9 | $90.6 | $96.7 | $94.7 |

Total outlays in 1996-97 are estimated to increase by over $23 million over the original budget for 1996-97. The increase in operating outlays is attributable to payment of $20 million toward the District's accumulated obligation to the federal Central Valley Project (CVP) and to a $3.2 million special payment to the City of San Jose to accelerate the installation of ultra low flow toilets in multi-family units. These outlays were funded from available reserves and will not restrict funds available for regularly budgeted operations of the Water Utility.

Without these two items totaling $23.2 million, operations costs in 1996-97 would be $75.5 million or roughly the amount budgeted for 1996-97. Expenditures in budgeted operating programs in 1996-97 are estimated to be near budgeted levels; consequently, operating and capital outlays as originally budgeted will be more than covered by estimated revenues, and the $23.2 million in extraordinary items will be funded from reserves

Cost pressures are expected to continue in the future as labor costs, water purchase costs, and material costs increase. These cost pressures, when combined with outlays to implement the District's Integrated Water Resources Plan (IWRP) and to pay accumulated costs of the CVP, are projected to raise operations expenditures to $125 million in 1997-98. The cost projections for 1997-98 and following two years assume $6.7 million per year to implement options such as water banking, identified in the IWRP. An additional $40.3 million is included, assuming that the Water Utility will make additional payments in 1997-98 toward the accumulated costs of the CVP.

*Capital Outlays*

Revenue requirements for capital investments fluctuate markedly from year to year depending on the number and size of projects readied for construction. Compared with outlays in the 1980's for construction of Santa Teresa Water Treatment Plant ($60 million) and associated pipelines, recent requirements for capital projects have been relatively modest. After holding at roughly $10 million in both 1995-96 and 1996-97, capital appropriations for 1997-98 will double to $21.3 million. Fiscal year 1997-98 is the first year in a seven-year program to implement process changes and upgrades at the District's three water treatment plants. Capital improvements totaling $133 million (1997 dollars) are being planned to meet water quality regulations that require major process changes to reduce the production of by-products that occur during the disinfection of surface water at the treatment plants.

*Water Utility Reserves*

In 1995-96, revenues exceeded total outlays, and overall water utility reserves increased by $6 million. In fiscal year 1996-97, reserves were budgeted to increase by $4.6 million, but Board approved outlays discussed above are now estimated to require an overall decrease of $12.5 million in reserves. In 1997-98, reserves are projected to decrease by $52 million. The major use of reserves are for payment of an additional $40 million toward the District's accumulated obligation to the federal CVP. Funds for implementing the IWRP are projected to reduce the Supplemental Water Supply Appropriation by $6.7 million, and another $5 million will be used for capital investments.

# II. Analysis of Future Water Charges

**North County Analysis**

Water Charge Zone W-2, North County, accounts for approximately 80 percent of District water sales, but because of higher water rates, over 95 percent of water utility revenue. Finances of the water utility enterprise are dominated by North County operations, and the North County rate analysis is based on financial information for the total water utility.

**Ten-Year Outlook**

Revenues, expenditures, and balances for the Water Utility's 10-year plan are summarized in Table 3. Projected outlays are shown graphically in Figure 1. The need to improve the reliability of the District's water supplies, to meet water quality regulations, and to maintain the integrity of the in-county distribution system requires continuing investments in existing and new facilities. The projections in Table 3 incorporate the managerial and engineering assessments of expenditures necessary for operational needs, as well as capital improvements over the next 10 years. The projected outlays include over $133 million (in 1997 dollars) in capital improvements at the three water treatment plants and additional operating expenses once changes in the water treatment processes are in place. The capital improvement plan over the next 10 years totals $277 million when inflation projections are included. In December 1996, the Board endorsed the preferred strategy in the District's Integrated Water Resources Plan (IWRP). Potential outlays for additional banking agreements and other options identified in the IWRP are assumed to total $20 million over the next three years.

The projections in Figures 1 and 2 assume $150 million in revenue bonds will be sold to help finance capital improvements. Three bond financings are projected: $20 million in 1998-99; $70 million in 2001-02; and $60 million in 2002-03.

**Basis for North County Recommendation**

Using the projected outlays shown in Table 3, the current North County rate of $240 per acre-foot could be continued through fiscal year 1999-00. The Supplemental Water Supply Appropriation was set at $20 million, the level originally budgeted for 1996-97 and then depleted over the next three years to implement the IWRP. Beginning in 2000-01, rates would have to increase as work begins on the second phase of improvements at the treatment plants The projected rates shown in Figure 2 will provide sufficient funds over the next 10 years to pay debt service on an additional $150 million of revenue bonds and to fund $127 million of capital improvements on a pay-as-you-go basis.

**Alternative North County Analysis**

The preferred strategy includes investments in water banking, water transfers, conservation, and water recycling. If, to implement the IWRP, the District makes immediate investments in banking or other options without drawing on reserves in the Supplemental Water Supply Appropriation, a rate increase to $260 per acre-foot will be necessary in 1997-98. As shown in the lower half of Figure 2, using current revenues to implement the IWRP requires significantly higher rates over the next 4 years, but after that rates would be similar to those in the basic ten-year plan.

TABLE 3

# TEN-YEAR WATER UTILITY PLAN

($ in Thousands)

| | 1994-95 | 1995-96 | 1996-97 | 1997-98 | 1998-99 | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| REVENUES | Actual | Actual | Estimated | Projected | Projected | Projected | Projected | Projected | Projected | Projected | Projected | Projected | Projected |
| Groundwater Sales | $28,825 | $29,304 | $28,804 | $27,200 | $29,081 | $31,234 | $34,912 | $36,349 | $38,539 | $41,331 | $44,358 | $46,036 | $46,186 |
| Treated Water Sales | $31,926 | $33,450 | $42,080 | $41,770 | $42,080 | $42,390 | $46,250 | $50,520 | $53,060 | $56,360 | $59,700 | $61,540 | $61,540 |
| Surface/Recycled Water Sales | $262 | $253 | $148 | $148 | $148 | $152 | $165 | $172 | $180 | $193 | $205 | $210 | $210 |
| Miscellaneous Revenue | $3,419 | $3,732 | $1,393 | $2,411 | $2,398 | $1,961 | $1,825 | $1,838 | $1,854 | $1,870 | $1,886 | $1,903 | $1,921 |
| Interest | $7,277 | $7,771 | $6,852 | $5,144 | $2,497 | $1,895 | $1,434 | $1,460 | $1,720 | $1,999 | $1,693 | $1,792 | $1,886 |
| Property Taxes | $18,173 | $16,348 | $17,387 | $17,998 | $18,024 | $17,974 | $17,810 | $17,858 | $17,304 | $17,566 | $17,843 | $18,150 | $17,616 |
| Bonds, Loans, Grants | $0 | $60 | $0 | $0 | $18,220 | $0 | $0 | $63,769 | $54,659 | $0 | $0 | $0 | $0 |
| Return from Reserve | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $6,592 | $0 | $0 | $0 |
| TOTAL REVENUES | $89,882 | $90,918 | $96,664 | $94,671 | $112,448 | $95,606 | $102,396 | $171,966 | $167,316 | $125,911 | $125,685 | $129,631 | $129,359 |
| EXPENDITURES | | | | | | | | | | | | | |
| Operating Expenses | $55,949 | $64,333 | $87,681 | $114,061 | $81,518 | $83,871 | $74,195 | $79,496 | $82,181 | $93,013 | $96,298 | $99,718 | $103,375 |
| Debt Service | $11,192 | $10,948 | $10,990 | $10,954 | $10,865 | $12,467 | $12,471 | $12,473 | $17,298 | $19,686 | $13,362 | $13,394 | $12,578 |
| Total Operations | $67,141 | $75,281 | $98,671 | $125,015 | $92,383 | $96,338 | $86,666 | $91,969 | $99,479 | $112,699 | $109,660 | $113,112 | $115,953 |
| Capital Projects | $22,822 | $9,594 | $10,521 | $21,316 | $31,793 | $8,274 | $15,218 | $78,655 | $58,665 | $19,381 | $13,937 | $14,634 | $15,366 |
| TOTAL EXPENDITURES | $89,963 | $84,875 | $109,192 | $146,331 | $124,176 | $104,612 | $101,884 | $170,624 | $158,144 | $132,080 | $123,597 | $127,746 | $131,319 |
| RESERVES | | | | | | | | | | | | | |
| San Felipe O&M Reserve | $1,629 | $1,959 | $1,959 | $1,959 | $1,959 | $1,959 | $1,959 | $1,959 | $1,959 | $1,959 | $1,959 | $1,959 | $1,959 |
| Supp Water Supply Appr. | $20,000 | $19,500 | $20,000 | $13,300 | $6,600 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| Operating Contingency | $403 | $1,000 | $1,000 | $1,000 | $1,000 | $1,000 | $1,000 | $1,000 | $1,000 | $1,000 | $1,000 | $1,000 | $1,000 |
| Working Capital Appr. | $6,271 | $6,819 | $6,289 | $6,873 | $7,017 | $7,345 | $7,039 | $7,481 | $8,165 | $9,267 | $9,013 | $9,298 | $9,602 |
| Rate Stabilization Fund | $0 | $1,000 | $1,000 | $1,000 | $1,500 | $2,000 | $2,500 | $3,000 | $4,000 | $5,000 | $5,000 | $5,000 | $5,000 |
| Replacement Appr. | $5,150 | $5,356 | $5,624 | $5,905 | $6,200 | $6,510 | $6,836 | $7,178 | $7,536 | $7,913 | $8,309 | $8,724 | $9,160 |
| Future Years Capital | $28,097 | $18,990 | $16,224 | $10,676 | $9,709 | $9,165 | $9,157 | $9,215 | $16,346 | $7,698 | $9,644 | $10,829 | $8,129 |
| Construction Reserve | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| Bureau Repayment Appr. | $49,277 | $58,277 | $48,277 | $8,000 | $3,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| TOTAL RESERVES | $110,827 | $112,901 | $100,373 | $48,713 | $36,985 | $27,979 | $28,491 | $29,833 | $39,006 | $32,837 | $34,925 | $36,810 | $34,850 |

# Projected Expenditures
# 1995-96 to 2006-07

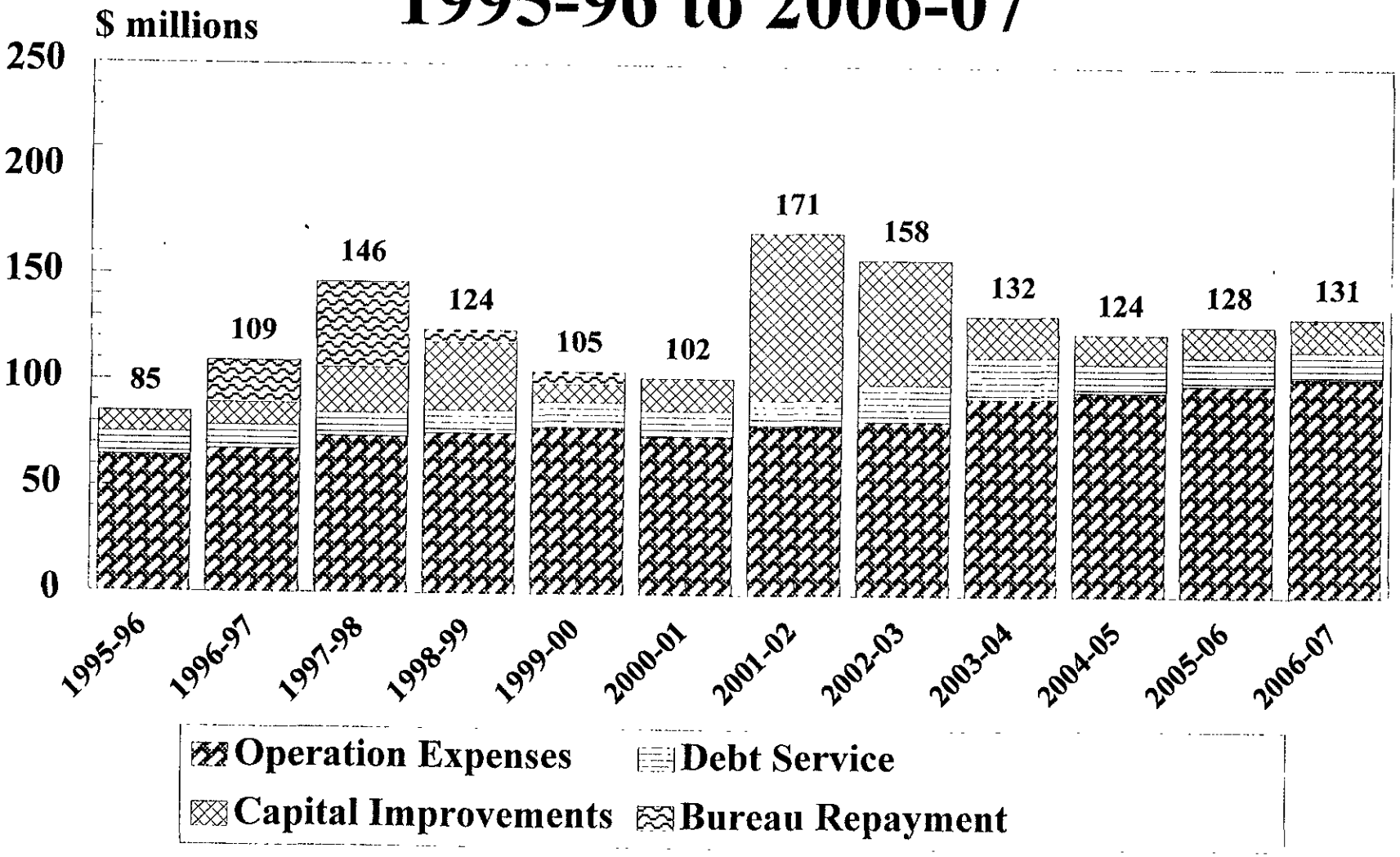
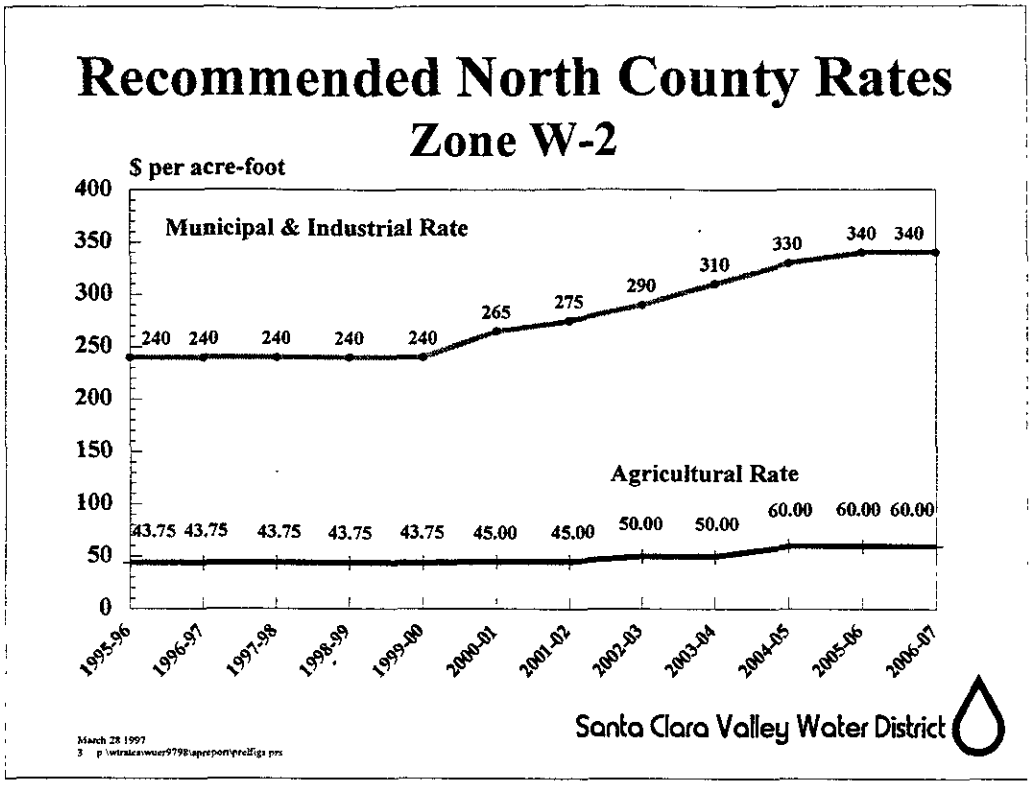



FIGURE 1

FIGURE 2


Recommended North County Rates
Zone W-2
$ per acre-foot
Municipal & Industrial Rate
240 240 240 240 240 265 275 290 310 330 340 340
Agricultural Rate
43.75 43.75 43.75 43.75 43.75 45.00 45.00 50.00 50.00 60.00 60.00 60.00
400
350
300
250
200
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Santa Clara Valley Water District
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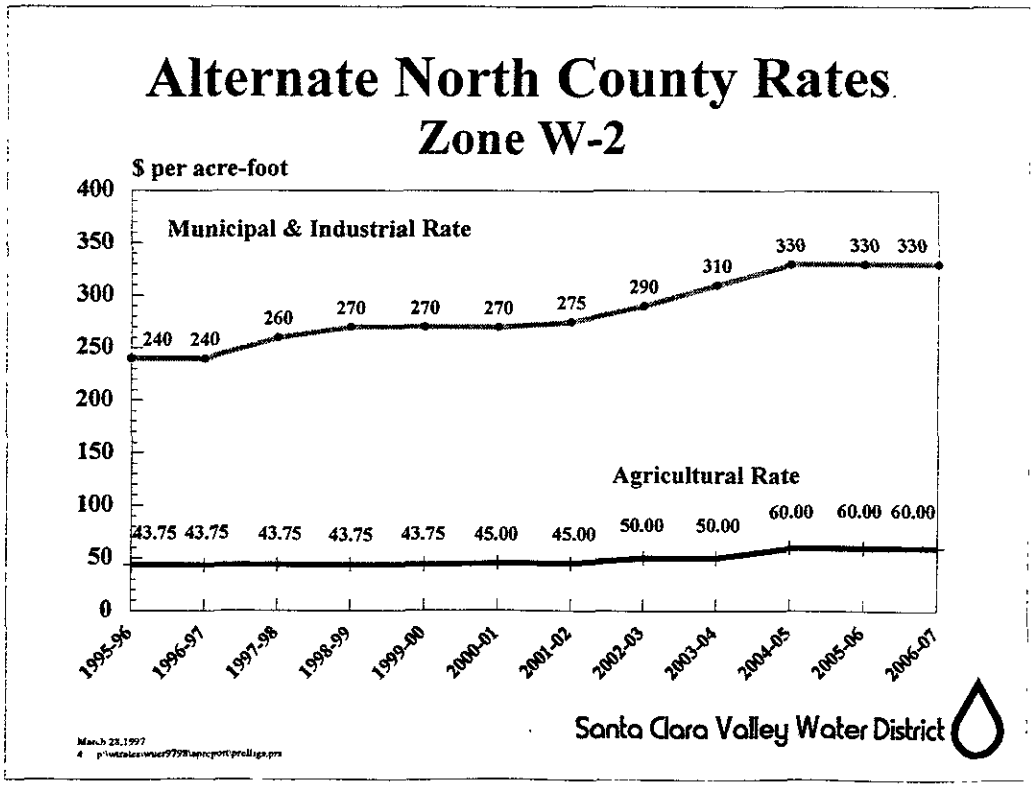
Alternate North County Rates
Zone W-2
$ per acre-foot
Municipal & Industrial Rate
240 240 260 270 270 270 275 290 310 330 330 330
Agricultural Rate
43.75 43.75 43.75 43.75 43.75 45.00 45.00 50.00 50.00 60.00 60.00 60.00
400
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Santa Clara Valley Water District

**South County (Zone W-5) Revenues and Outlays**

Rates in the South County (Water Charge Zone W-5) are based on the costs of specific facilities, imported water costs, and operations costs related to managing the groundwater basin, ensuring water quality, and measuring water supplies and usage. South County revenues less costs generated a surplus of $369,000 in Fiscal Year 1995-96. Estimates for Fiscal Year 1996-97 show a narrow surplus; however, projections for 1997-98 show a deficit because of higher costs for increased purchases of imported water and additional amortization expenses for two recently completed projects in Zone W-5:

- San Pedro Recharge Facility— $1.9 million
- Uvas Dam Seepage Mitigation— $1.1 million

Despite the indicated deficit of $115,000 in 1997-98, the current M&I rate of $108 per acre-foot is recommended to remain in effect for 1997-98. The surpluses accumulated in the past 2 years more than offset the anticipated deficit. Moreover, the deficit could turn out to be smaller if the use of imported CVP water is less than projected. This is a distinct possibility because the volume of water that can be successfully processed through the rebuilt San Pedro facility is unknown.

At the present time, projections of water utility operations and costs in South County are complicated by uncertainty in the use of imported water in the San Pedro facility and the outcome of efforts to keep operations costs in check. Successive wet years have led to high groundwater levels are causing problems for some property owners in South County. The District is analyzing approaches to monitoring the movement of groundwater and may need to invest in an expanded monitoring network to better understand the underground aquifers in the South County.

Over the longer term, escalation of operations costs is expected to require M&I rate increases beginning in 1999-00 as shown in Figure 3. Increases in agricultural water rates can be avoided if the open space credit for agriculture is maintained.

**Basis for South County Recommendation**

Using current expenditure levels, the recommended rates, $108 per acre-foot for M&I and $11.50 per acre-foot for agricultural water, are projected to result in a deficit in 1997-98. Staff recommends a conservative approach that avoids rate increases for South County until it is clear that operations cost increases cannot be avoided or that the operation of San Pedro Recharge Facility allows more federal CVP water to be recharged in South County.

## TABLE 4

## OVERVIEW OF SOUTH COUNTY FINANCES
(Thousands)

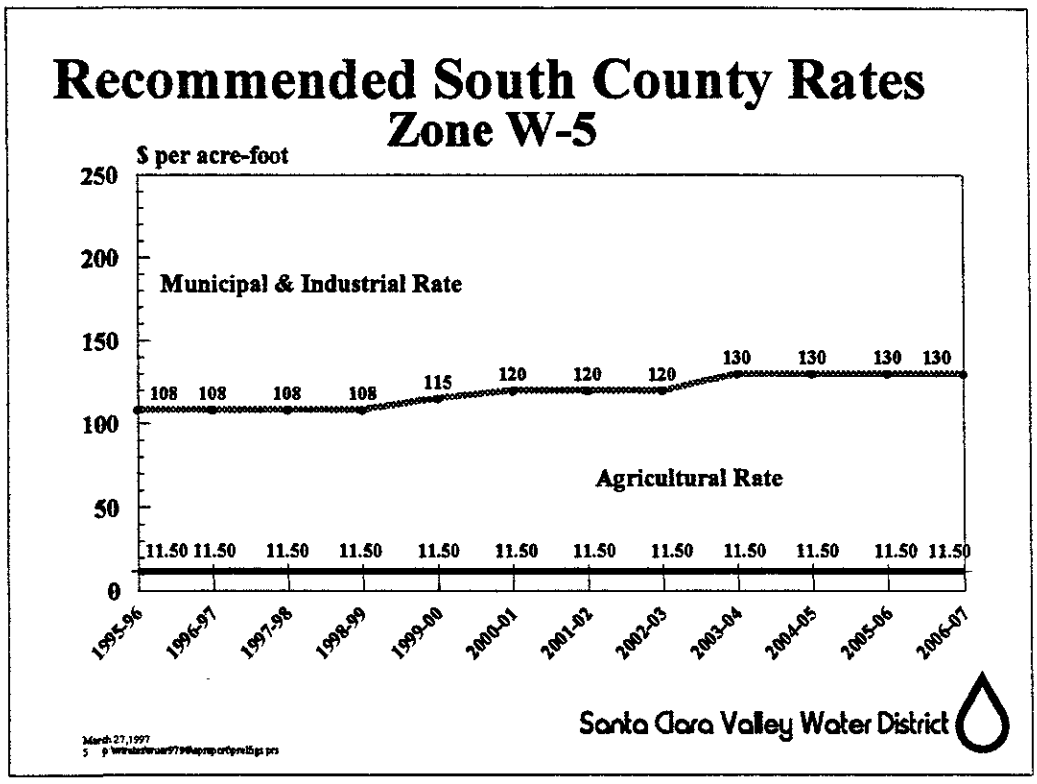
| | Actual 1995-96 | Estimated 1996-97 | Projected 1997-98 |
|---|---|---|---|
| Revenues* | $4,204 | $4,219 | $4,289 |
| Costs | | | |
| Operations | 2,463 | 2,685 | 2,484 |
| Imported Water Purchases | 1,045 | 1,169 | 1,358 |
| Amortized Capital Improvements | 327 | 327 | 562 |
| Total Costs | $3,835 | $4,181 | $4,404 |
| Surplus (Deficit) | 369 | 38 | (115) |

*Includes open-space credit

The upper half of Figure 3 shows the rate projection for the 10 years to 2006-07. Starting with a recommended rate of $108.00 per acre-foot in 1996-97, the projections show M&I rates increasing in three steps to $130 per acre-foot in 2003-04. Agricultural water rates are shown as holding steady at $11.50 per acre-foot to 2006-07.

To avoid a deficit in 1997-98, the M&I rate would have to be raised to $115 per acre-foot. The lower half of Figure 3 shows the rate trend following this approach.

FIGURE 3


Recommended South County Rates
Zone W-5
$ per acre-foot
250
200
150
100
50
0
Municipal & Industrial Rate
108 108 108 108 115 120 120 120 130 130 130 130
Agricultural Rate
11.50 11.50 11.50 11.50 11.50 11.50 11.50 11.50 11.50 11.50 11.50 11.50
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1996-97
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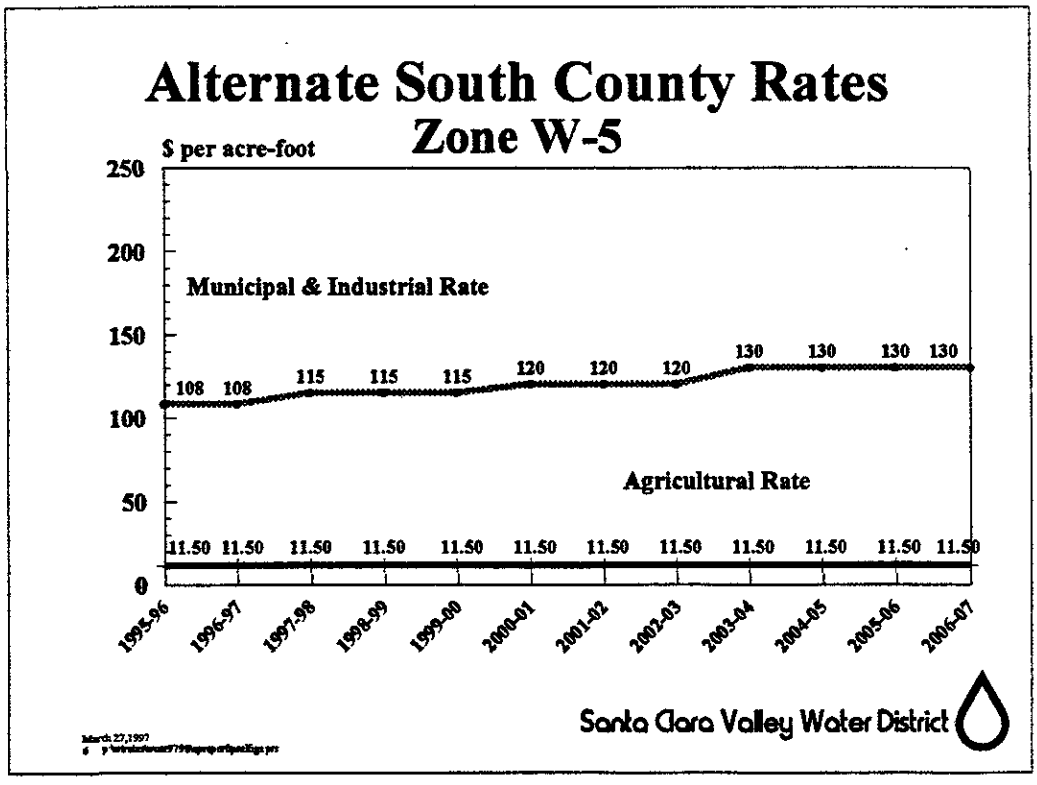
2002-03
2003-04
2004-05
2005-06
2006-07
Santa Clara Valley Water District


Alternate South County Rates
Zone W-5
$ per acre-foot
250
200
150
100
50
0
Municipal & Industrial Rate
108 108 115 115 115 120 120 120 130 130 130 130
Agricultural Rate
11.50 11.50 11.50 11.50 11.50 11.50 11.50 11.50 11.50 11.50 11.50 11.50
1995-96
1996-97
1997-98
1998-99
1999-00
2000-01
2001-02
2002-03
2003-04
2004-05
2005-06
2006-07
Santa Clara Valley Water District

# III. Water Resource Challenges

The water utility is challenged by cost pressures on many fronts:

- Facility operation and maintenance
- Reliability of imported water supplies
- Capital improvement program

This section concludes with background information on water use trends in Santa Clara County and County water supplies.

**Facility Operation and Maintenance**

As the District's investment in water treatment and conveyance facilities grows, so does the cost of operations and maintenance. Moreover, the complexity of water utility operations is continually increasing as more regulatory requirements are imposed on treatment plant operations and maintenance procedures. To date, the District has met these challenges through efficiency improvements and investments in automation. Expenditures for operations are projected to grow because of increasing costs for chemicals used in water treatment plants, and a variety of water quality management tasks. Maintenance expenditures are projected to increase as aging treatment plants and pipelines require repair and replacement of equipment. The District has identified numerous process and control system upgrades for the treatment plants and treated water pipelines that are in the capital improvement program and will be undertaken over the next 5 years. The District is also planning to schedule more training time for operating personnel to meet the needs of more complex treatment processes and regulatory requirements.

**Imported Water Reliability**

Existing and proposed environmental regulations in the San Francisco Bay/Delta continue to affect the District's expected imported supplies. The EPA finalized its Delta water quality standards in December 1994, and the State Water Resources Control Board is preparing to implement a Bay/Delta protection plan consistent with the principles agreed to by the State and federal governments in December 1994.

As discussed in Section I, the water utility is actively working to maintain the reliability of its imported water supplies from the State Water Project (SWP) and CVP. In May 1996, the Board approved a banking agreement with Semitropic Water Storage District to store 45,000 acre-feet of SWP. Discussions with other imported water contractors to reallocate entitlements and to bank surplus water are currently underway and expected to result in further agreements that will stabilize available imported supplies through wet and dry periods.

In addition, several other imported water project activities could require significant outlays:

> ***SWP***—In addition to the banking agreements discussed above, the District could purchase options to acquire supplemental water from the SWP in years of below-average rainfall. Supplemental water is unlikely to be purchased every year, however. The Supplemental Water Supply Appropriation is available to acquire supplemental water, and no specific expenditures have been projected.
>
> In 1994, the SWP contractors, including the District, negotiated an agreement revising contract provisions affecting allocation of water shortages and operational and financial control of the SWP.

Under provisions of the resulting "Monterey Agreement," the District has an opportunity to purchase 20,000 acre-feet of additional entitlement from the SWP. The cost and timing of this potential purchase are currently unknown because litigation delayed negotiation of any purchases. Legal impediments appear to be diminishing and an agreement could be completed in FY 1997-98. The Supplemental Water Supply Appropriation is the most likely source of funds for this additional entitlement.

*CVP*—In September 1996, the Board approved payment of $20 million toward the District's accrued obligations to the CVP, using funds from the Bureau Repayment Appropriation. The District is currently evaluating its options regarding its CVP contract. If the District does not renegotiate its CVP contract by September 30, 1997 under the provisions of the Central Valley Project Improvement Act, it faces other penalties that are imposed by the Central Valley Project Improvement Act.

The District continues to explore the possibility of purchasing the San Felipe Division of the CVP. The costs of the San Felipe Division are currently financed by the federal government, and the District would have to arrange debt financing if the District were to conclude an agreement for outright purchase. Staff is not projecting any additional costs or financing plan related to acquiring the San Felipe Division at this time because of the many uncertainties surrounding the purchase.

**Capital Improvement Program**

In fiscal year 1996-97, work was completed on Stage I of the Parallel East Pipeline in east San Jose, the San Pedro Recharge Facility in Morgan Hill, and the Uvas Dam Seepage Mitigation Project. As fiscal year 1996-97 comes to a close, construction continues on restoration of the freeboard at James J. Lenihan Dam at Lexington Reservoir, and Phase II of the Raw Water Control System to automate control of the District's Countywide conveyance, treatment, and distribution system.

For fiscal year 1997-98, the largest single capital outlay is $6.6 million for work to repair the Almaden-Calero Canal to replace the lining and construct needed berms and flood walls. Work totaling $4.1 million is scheduled to begin at the Penitencia Water Treatment Plant. Planning for a new water quality laboratory will continue in 1997-98.

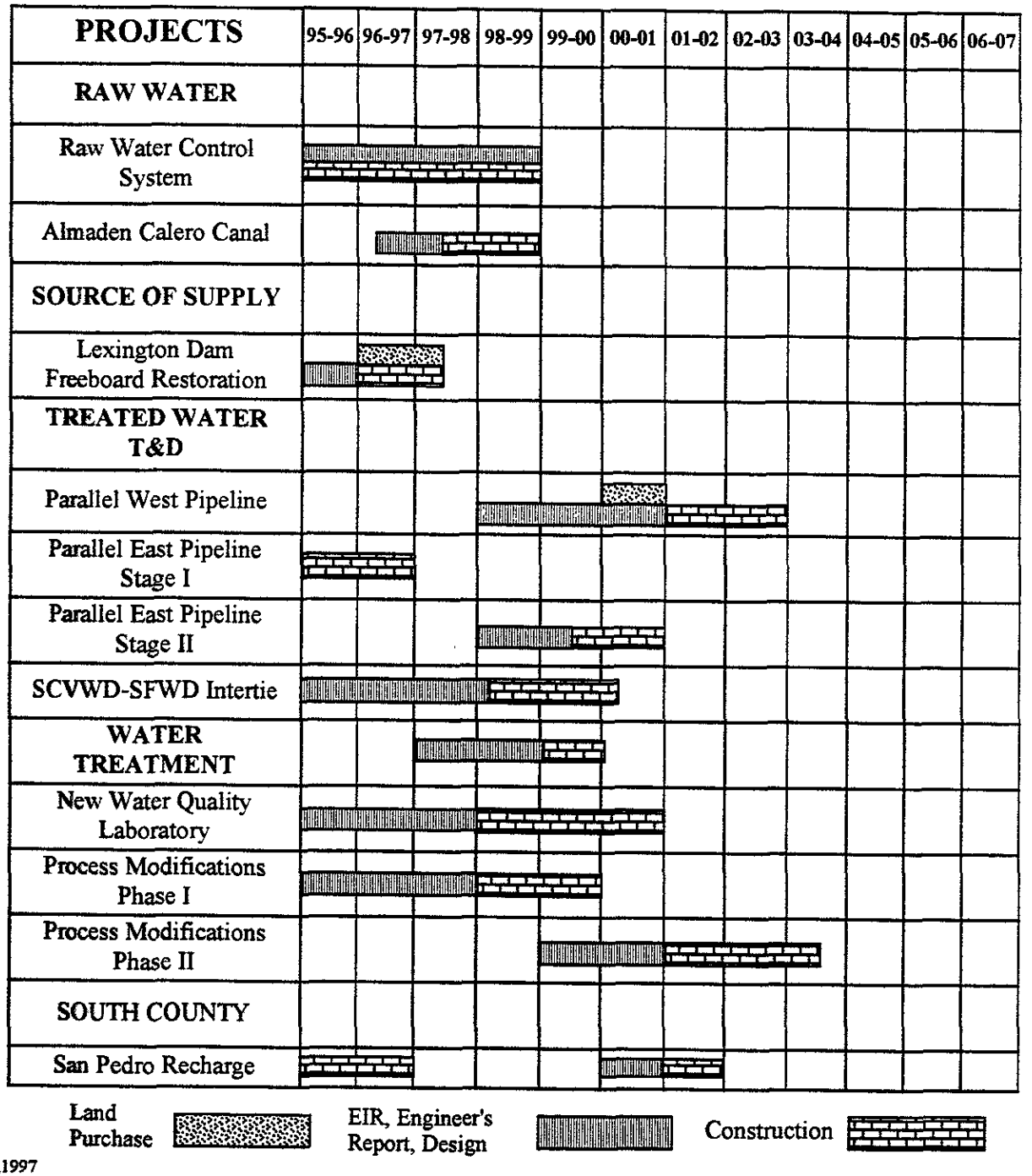
This work at Penitencia is the next step in complying with expected regulations governing disinfection by-products. For several years, the District has anticipated that the EPA would finalize regulations under the Safe Drinking Water Act that would govern disinfection processes at the three water treatment plants. Regulations that have been proposed would require two phases of major modifications to water treatment processes and are estimated to require capital improvements totaling over $133 million in current dollars at the District's three treatment plants. The first phase of regulations is now expected to go into effect in 2000 with implementation of the second phase regulations by 2003.

Figure 4 shows schedules for major projects underway and planned by the Water Utility. Future projects include Stage II of the Parallel East Pipeline, Parallel West Pipeline, Santa Clara Valley Water District—San Francisco Water Department Intertie, disinfection modifications at all three water treatment plants, and a new water quality laboratory.

A map in Appendix C shows the location of the District's major existing and proposed facilities.

## FIGURE 4
## MAJOR CAPITAL IMPROVEMENT PROJECTS

**Fiscal Year 1995-96 Through 2006-2007**




March 27,1997

## Long-Term Water Use Trends

Water use in the County is categorized as either agricultural or municipal and industrial (M&I). Recorded fiscal year North County water use since 1964-65 and South County water use since 1987-88 (when the District merged with Gavilan Water Conservation District) is shown in Figure 5. Metcalf Road is the dividing line between North County Zone W-2 and South County Zone W-5 (see map in Appendix C).

Water use in North County is predominantly M&I. Current projections indicate an increase in M&I use through 2020, when the total North County annual water use is projected to be 374,000 acre-feet. Agricultural water use is expected to range between 3,000 and 4,000 acre-feet per year through the year 2020.

In South County, it is anticipated that M&I water use will continue to increase while agricultural use will decrease. The latest projections for South County anticipate total water use of about 79,000 acre-feet per year by the year 2020. M&I and agricultural water uses are projected to be 49,000 acre-feet and 30,000 acre-feet per year, respectively.

The projected water usage discussed above and shown in Figure 5 totals 456,000 acre-feet in 2020. This represents the likely outcome of many factors, including population trends, employment growth, water conservation practices, and plumbing code changes. Alternative circumstances could lead to total county water needs ranging from as low as 350,000 acre-feet to as high as 500,000 acre-feet in 2020.

## Long-Term Water Supply Trends

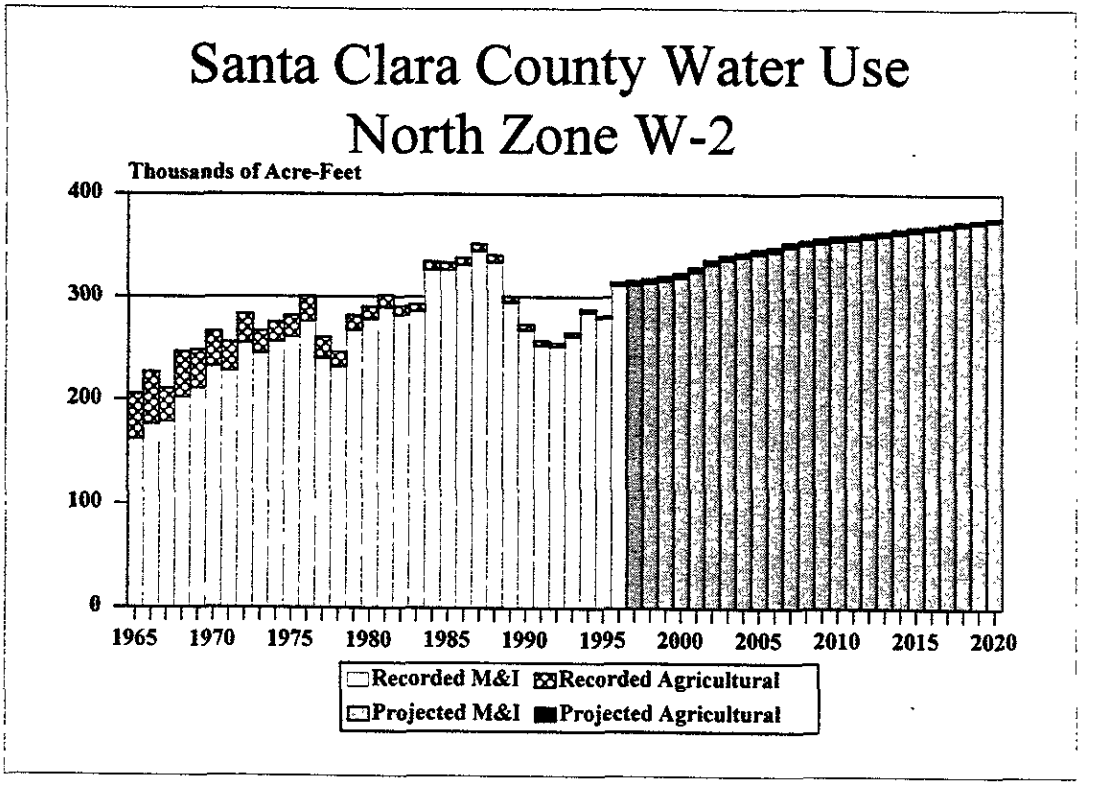
The District's water supply includes water imported from the Sacramento-San Joaquin Delta, local water stored in reservoirs and groundwater subbasins, and recycled water. The Santa Clara Valley Groundwater Subbasin is in the North County, while both the Coyote and Llagas Groundwater Subbasins are in South County.

Sources of water supply in North County consist of locally developed water and water imported via the SWP's South Bay Aqueduct, the federal CVP's San Felipe Division, and the City and County of San Francisco's Bay Division Pipelines (Hetch Hetchy). South County is supplied by locally developed water and water imported via the San Felipe Division. The recorded water supply in North County since 1964-65 and South County since 1987-88 is shown in Figure 6.

Within the County, the District continues its conjunctive use program of recharging surface water to augment groundwater supplies. The District is providing financial contributions to the City of Santa Clara for delivery of recycled water for nonpotable uses. Sunnyvale's wastewater plant is also producing recycled water for local nonpotable uses. Future local supplies are projected to be augmented by nonpotable water from recycled water facilities in San Jose and the South County Regional Wastewater Authority serving Gilroy and Morgan Hill.

The District, along with numerous other urban water agencies, is participating in the statewide Water Conservation Memorandum of Understanding to implement 16 urban water use Best Management Practices (BMPs). In addition, the District has started urban water use conservation programs beyond the BMPs. The District is also implementing agricultural water conservation required under the CVP Improvement Act.

FIGURE 5


Santa Clara County Water Use
North Zone W-2
Thousands of Acre-Feet
400
300
200
100
0
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
Recorded M&I
Recorded Agricultural
Projected M&I
Projected Agricultural

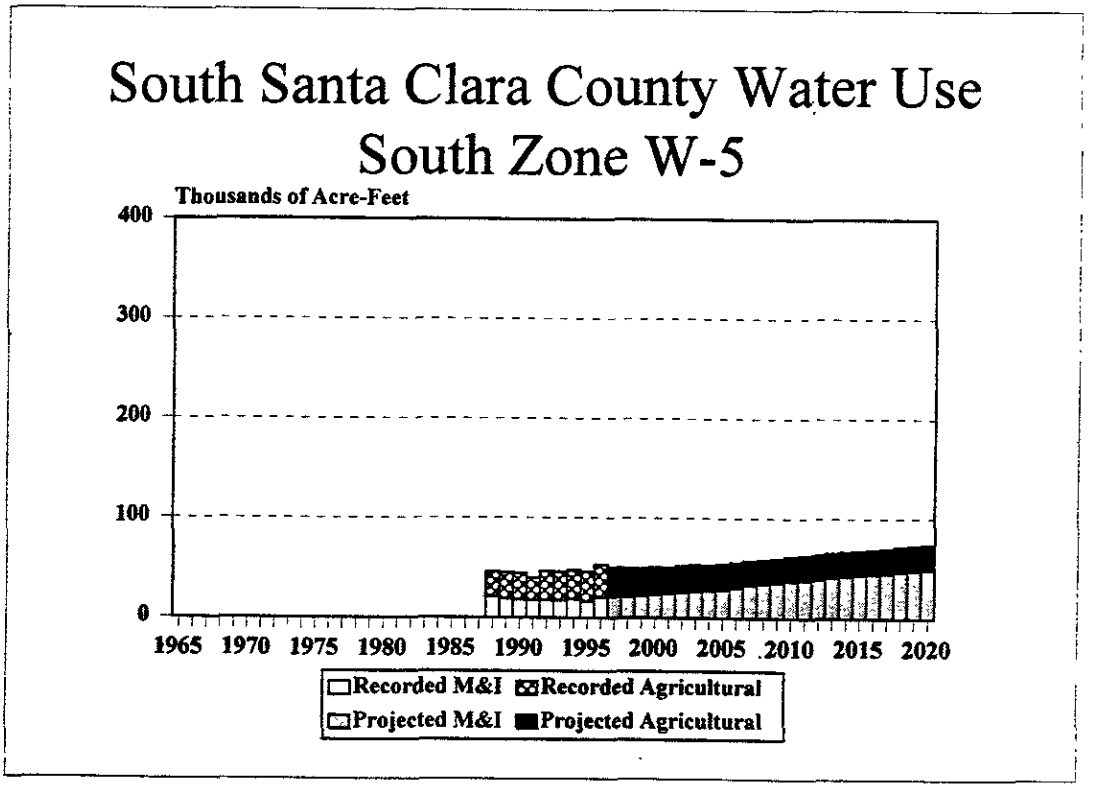
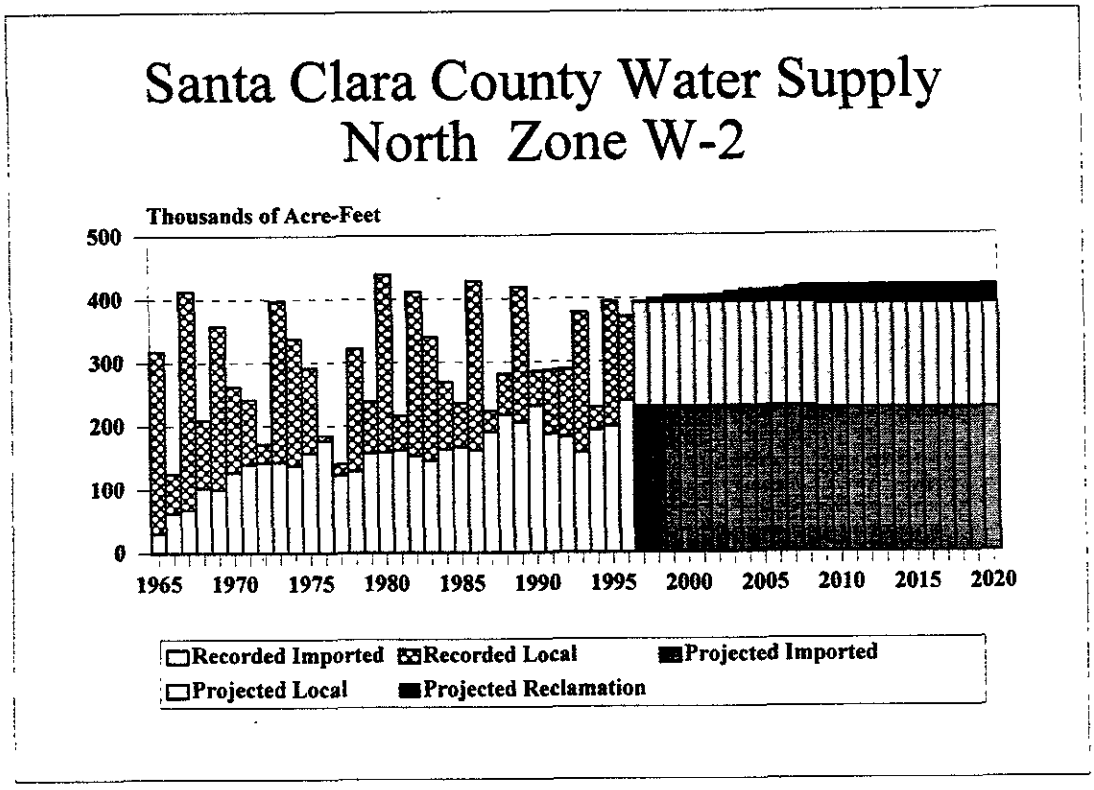
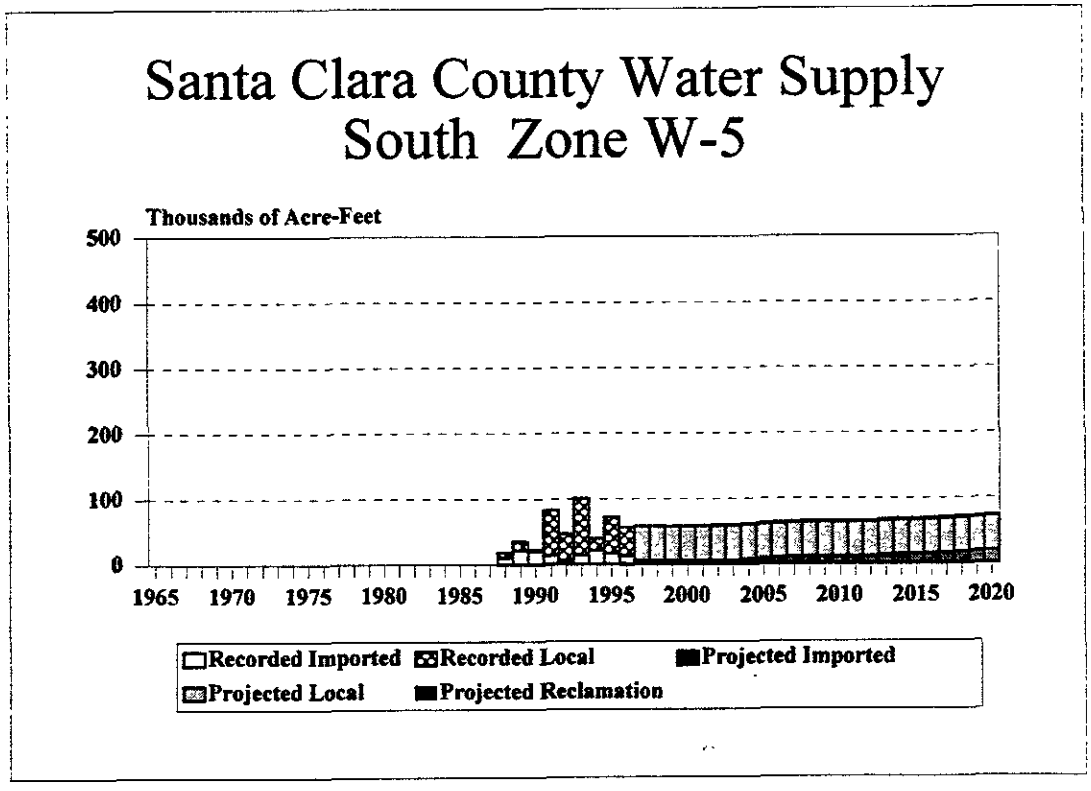

South Santa Clara County Water Use
South Zone W-5
Thousands of Acre-Feet
400
300
200
100
0
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
Recorded M&I
Recorded Agricultural
Projected M&I
Projected Agricultural

FIGURE 6


Santa Clara County Water Supply
North Zone W-2
Thousands of Acre-Feet
500
400
300
200
100
0
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
Recorded Imported
Recorded Local
Projected Imported
Projected Local
Projected Reclamation


Santa Clara County Water Supply
South Zone W-5
Thousands of Acre-Feet
500
400
300
200
100
0
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
Recorded Imported
Recorded Local
Projected Imported
Projected Local
Projected Reclamation

**Water Supplies in 1996 and 1997**

Tables 5 and 6 summarize the District's sources of water and the disposition of supply between consumptive use and storage in surface reservoirs and underground water basins.

As of late March local rainfall in the 1996-97 season was approximately equal to the historical season average, and storage in the surface water reservoirs was over 85 percent of capacity. The groundwater basins contained about 303,000 acre-feet in January 1997.

To effectively use and store both local and imported water supplies, the District is optimizing the use of imported water within the County and actively pursuing banking alternatives for the imported water entitlements available in calendar year 1997. One hundred percent of the State Water Project (SWP) entitlement of 100,000 acre-feet is available to the District; however, the District is seeking to bank 66,000 acre-feet outside the County. The CVP has indicated that 100 percent of the M&I and agricultural entitlement of 152,500 acre-feet will be available. Again, the District is unable to import the full amount available and will reallocate 20,00 acre-feet to Westlands Water District. In 1997, the San Francisco Water Department (SFWD) is expected to deliver about 61,000 acre-feet of water to retail water agencies in the northern part of the County. Thus, including CVP agricultural entitlements, the total imported water supply available for calendar year 1997 exceeds 313,000 acre-feet.

# TABLE 5

# Calendar Year 1996 Recorded Water Supply and Use (Acre-Feet)

| | | |
|---|---|---|
| **BEGINNING STORAGE** | | |
| Santa Clara Valley Subbasin | | |
| Surface Reservoirs | 95,000 | |
| Groundwater | 211,000 | |
| Subbasin Total | | 306,000 |
| Coyote and Llagas Subbasins | | |
| Surface Reservoirs | 10,000 | |
| Groundwater | 89,000 | |
| Subbasin Total | | 99,000 |
| San Benito County | | |
| San Justo Reservoir* | | 2,000 |
| San Felipe Allocation in San Benito County | | 16,000 |
| **Total Beginning Storage** | | **423,000** |
| **SUPPLY** | | |
| Imports: | | |
| Hetch Hetchy (80 percent of 76,000 AF) | | 61,000 |
| State Water Project (89 percent of 100,000 AF) | | 89,000 |
| San Felipe Division (66 percent of 152,500 AF) | | 101,000 |
| Local Supply: | | |
| San Jose Water Company | | 19,000 |
| Santa Clara Valley Subbasin | | 112,000 |
| Coyote and Llagas Subbasins | | 44,000 |
| **Total Supply** | | **426,000** |
| **USE** | | |
| North County Use | | 307,000 |
| South County Use | | 50,000 |
| **Total Use** | | **357,000** |

# TABLE 5

(Continued)

**CHANGE IN STORAGE**

| | | |
|---|---|---|
| Santa Clara Valley Subbasin | | |
| Surface Reservoirs | 15,000 | |
| Groundwater | 0 | |
| Subbasin Total | | 15,000 |
| Coyote and Llagas Subbasins | | |
| Surface Reservoirs | 6,000 | |
| Groundwater | 3,000 | |
| Subbasin Total | | 9,000 |
| Water Banking | | |
| Semitropic Water Storage District (SWP) | | 45,000 |
| **Total Storage Change** | | **69,000** |

**END OF YEAR STORAGE**

| | | |
|---|---|---|
| Santa Clara Valley Subbasin | | |
| Surface Reservoirs | 110,000 | |
| Groundwater | 211,000 | |
| Subbasin Total | | 321,000 |
| Coyote and Llagas Subbasins | | |
| Surface Reservoirs | 16,000 | |
| Groundwater | 92,000 | |
| Subbasin Total | | 108,000 |
| Water Banking | | |
| San Justo Reservoir* | | 2,000 |
| San Felipe Allocation in San Benito County | | 16,000 |
| Semitropic Water Storage District (SWP) | | 45,000 |
| **Total End of Year Storage** | | **492,000** |

* Water from San Felipe allocation banked in San Benito County.

# TABLE 6

# Calendar Year 1997 Projected Water Supply and Use (Acre-Feet)

| | | |
|---|---|---|
| **BEGINNING STORAGE** | | |
| Santa Clara Valley Subbasin | | |
| Surface Reservoirs | 110,000 | |
| Groundwater | 211,000 | |
| Subbasin Total | | 321,000 |
| Coyote and Llagas Subbasins | | |
| Surface Reservoirs | 16,000 | |
| Groundwater | 92,000 | |
| Subbasin Total | | 108,000 |
| San Benito County | | |
| San Justo Reservoir (CVP) | | 2,000 |
| San Felipe Allocation in San Benito County | | 16,000 |
| Semitropic Water Storage District (SWP) | | 45,000 |
| **Total Beginning End of Year Storage** | | **492,000** |
| **SUPPLY** | | |
| Imports: | | |
| Hetch Hetchy (80 percent 76,000 AF) | | 61,000 |
| State Water Project (100 percent of 100,000 AF) | | 100,000 |
| San Felipe Division (87 percent of 152,500 AF)* | | 132,500 |
| Local Supply: | | |
| San Jose Water Company | | 17,000 |
| Santa Clara Valley Subbasin | | 180,000 |
| Coyote and Llagas Subbasins | | 79,000 |
| **Total Supply** | | **569,500** |
| **USE** | | |
| North County Use | | 335,000 |
| South County Use | | 50,000 |
| **Total Use** | | **385,000** |

# TABLE 6

(Continued)

**CHANGE IN STORAGE**

| | | |
|---|---|---|
| Santa Clara Valley Subbasin | | |
| Surface Reservoirs | (28,000) | |
| Groundwater | 40,000 | |
| Subbasin Total | | 12,000 |
| Coyote and Llagas Subbasins | | |
| Surface Reservoirs | (10,000) | |
| Groundwater | 39,000 | |
| Subbasin Total | | 29,000 |
| Water Banking | | |
| Semitropic Water Storage District (SWP) | | 65,000 |
| Additional Required Storage (to be determined) | | 2,500 |
| **Total Storage Change** | | **108,500** |

**END OF YEAR STORAGE**

| | | |
|---|---|---|
| Santa Clara Valley Subbasin | | |
| Surface Reservoirs | 82,000 | |
| Groundwater | 251,000 | |
| Subbasin Total | | 333,000 |
| Coyote and Llagas Subbasins | | |
| Surface Reservoirs | 6,000 | |
| Groundwater | 131,000 | |
| Subbasin Total | | 137,000 |
| San Benito County | | |
| San Justo Reservoir | | 2,000 |
| San Felipe Allocation in San Benito County | | 16,000 |
| Semitropic Water Storage District (SWP) | | 110,000 |
| Additional Required Storage (to be determined) | | 2,500 |
| **Total End of Year Storage** | | **605,500** |

* Does not include CVP Reallocation Agreement of 20,000 acre-feet

# APPENDIX A

# WATER UTILITY RATE COMPONENTS AND RECOMMENDED RATES

# TABLE A-1

## RECOMMENDED WATER RATE COMPONENTS FOR FISCAL YEAR 1997-98

| Component | Rate (AF) |
|---|---|
| Basic User, Zone W-2 | |
| Agricultural | $43.75 |
| Municipal and Industrial | 240.00 |
| Basic User, Zone W-5 | |
| Agricultural | 11.50 |
| Municipal and Industrial | 108.00 |
| Treated Water Surcharge | |
| Contract | 70.00 |
| Noncontract | 30.00 |
| Water Master | 11.75 |
| Capital Cost | |
| Half Road Lateral System | 2.75 |

# TABLE A-2

## RECOMMENDED WATER CHARGES FOR FISCAL YEAR 1997-98

| Type of Charge | AG Water (AF) | M&I Water (AF) |
|---|---|---|
| Groundwater | | |
| Zone W-2 | $43.75 | $240.00 |
| Zone W-5 | 11.50 | 108.00 |
| Surface Water [1] | | |
| Evergreen Deliveries [2] | 228.00 | N/A |
| Half Road Deliveries [3] | 26.00 | 122.50 |
| Other Zone W-5 Deliveries [4] | 23.25 | 119.75 |
| Other Zone W-2 Deliveries [5] | 55.50 | 251.75 |
| Minimum Charge—Zone W-5 [6] | 81.00 | 81.00 |
| Minimum Charge—Zone W-2 [7] | 180.00 | 180.00 |
| Stored Water | | |
| Zone W-2 | 43.75 | 240.00 |
| Zone W-5 | 11.50 | 108.00 |
| Treated Water [8] | | |
| Contract | N/A | 310.00 |
| Noncontract | N/A | 270.00 |
| Recycled Water | | |
| Gilroy | 20.00 | 80.00 |

[1] Surface water charge is the sum of the basic user charge plus the water master charge. It also includes the capital cost and power, wherever applicable.

[2] Evergreen agricultural delivery charges for 1992 through 1995 equal the 1988-89 rate ($72.00/AF) plus 50 percent of the City of San Jose's wheeling charge. The District no longer delivers M&I water to the Evergreen Area.

[3] Half Road = Basic User (AG or M&I @ $11.50 or $108.00) + Water Master ($11.75) + Capital ($2.75).

[4] Other Zone W-5 Deliveries = Basic User (AG or M&I @ $11.50 or $108.00) + Water Master ($11.75).

[5] Other Zone W-2 Deliveries = Basic User (AG or M&I @ $43.75 or $240.00)+ Water Master ($11.75).

[6] Minimum Charge W-5 = 0.75 X Basic User W-5 (M&I @ $108.00).

[7] Minimum Charge W-2 = 0.75 X Basic User W-2 (M&I @ $240.00).

[8] Treated Water Charge is the sum of Basic User ($240.00) and Treated Water Surcharge ($70.00/AF).

# APPENDIX B

# DESCRIPTION OF WATER UTILITY REVENUE SOURCES, COST CENTERS, AND RESERVES

**Pricing Policy**

The District's Board of Directors, adopted Resolution No. 96-82, updating the water utility taxing and pricing policy in November 1996. This pricing policy incorporates four concepts: (1) water pooling, (2) water facilities cost pooling, (3)water resources management and (4) revenue pooling. the complete policy is included in Appendix D.

**Water Charges**

- Water charges include a **groundwater charge**, which is equivalent to the **basic user charge**, and is associated with the benefit of groundwater supplies. The groundwater charge is an excise tax applied to water extracted from the groundwater basin in Zones W-2 and W-5 as shown in Appendix C. The basic user charge is applied to other types of water delivered by the District. There are two rates, one for agricultural water and one for M&I water.

- **A treated water surcharge**, which is associated with the benefit of receiving treated water, is levied in addition to the basic user charge on water delivered from the District's water treatment plants.

**Property Taxes**

Ad valorem taxes provide revenue to support several benefits which are general in nature serving all, or large areas of the County. Some of these benefits are the availability of imported water to the County, recreation associated with the District's reservoirs, and replenishment of the County's groundwater subbasins.

The District receives a portion of the 1 percent Countywide tax revenues as allocated by the County Assessor. Tax Zones W-3 and W-4, as well as a Countywide ad valorem tax are part of the 1 percent allocation. In 1992-93, 10 percent of the Water Utility's portion of the 1 percent allocation was reallocated as part of the 1992-93 State budget. It is possible that the Water Utility will be impacted by further State reallocation of the 1 percent ad valorem tax in the future.

The District also levies additional ad valorem taxes under Article XIII A of the State Constitution to meet: (a) prior approved general obligation bond debt service in Zones W-1 and W-6 (zones are shown on the map in Appendix C) and (b) part of the contractual obligations for SWP water with a Countywide tax.

**Debt Financing**

To fund the construction of new facilities, the District has relied on both pay-as-you-go financing and long-term debt financing from revenue bonds as authorized by the voters in 1977. The last remaining 1977 authorized revenue bonds were sold in April 1984. In January 1984, State legislation allowed the District to seek authorization to issue revenue bonds as needed following the Board of Directors' approval. County voters approved this authorization in November 1984. The District sold an additional $30 million of revenue bonds in November 1985 to provide needed funding for ongoing projects. In August 1986, the District refunded all outstanding water revenue bonds. Again, in June 1994, the District took advantage of favorable market conditions to refund the remaining 1986 water revenue bonds. The 1994 refunding totaled $65.9 million at an effective interest rate of 5.2 percent.

**Water Utility Reserves**

1. The **Future Year's Capital Appropriation** will finance construction of necessary facilities of the In-County Distribution System. This balance may include monies received from bond sales, taxes, water charges and other revenues.

2. The **Contingency Appropriation** is an amount set aside to meet unforeseen expenditure needs that may arise.

3. The **Replacement Appropriation** sets aside funds to replace major equipment items at the end of their useful lives.

4. The **Working Capital Appropriation** is required to be at least 1/12th of the utility's operating costs, according to the bond master resolution.

5. The **San Felipe O&M Appropriation** sets aside funds for unanticipated operations or maintenance costs on the San Felipe Division.

6. The **Bureau Replacement Appropriation** sets aside funds for repayment of the District's long-term obligation to the Bureau of Reclamation (Bureau) above current year water service contract obligations.

7. The **Supplemental Water Supply Appropriation** sets aside funds to purchase additional water, when needed, and to help finance water banking, water recycling, and other projects to improve the reliability of District water supplies.

8. The **Rate Stabilization Reserve Fund** was established in the master resolution of the 1994 bond refunding. Transfers from this fund can be used as operating revenue to maintain revenue bond coverage during years of decreased water sales.

In addition to the foregoing balances held by the District, a debt service reserve fund is held by the District's fiscal agent to meet any deficiencies that may occur in meeting the revenue bond debt service. The amount on deposit is equal to 10 percent of the proceeds from the 1994 refunding or $6,591,500.

**Water Utility Zones**

The major sources of water revenue are from charges levied on all groundwater extracted within Zone W-2 and Zone W-5 of the District and from the sale of approximately 100,000 acre-feet of treated water. Other water charges are made for surface water diversions and sales of recycled water in the Gilroy area. A brief description of each water zone (see map in Appendix C) within the Water Utility Enterprise follows:

**Zone W-1** encompasses the groundwater basin in northern Santa Clara County and small peripheral areas outside the groundwater basin, with the retail service areas of privately-owned public utilities and municipal water departments using water pumped from the groundwater basin. This area provides the security for general obligation bonds. Zone W-1 comprises an area of approximately 290 square miles and includes all or portions of 13 of the County's 15 cities, plus some unincorporated territory.

**Zone W-2** encompasses the Santa Clara Valley groundwater basin north of Metcalf Road. It includes those groundwater producing facilities that benefit from recharge of the basin with local and imported water. A charge is levied for all groundwater extracted from this zone.

**Zone W-3** encompasses the Coyote and Llagas groundwater basins in the area from Metcalf Road in the north to just south of the City of Morgan Hill. Part of the County property tax within the 1 percent limit is allocated to this zone.

**Zone W-4** contains all of Zone W-2 and lands outside Zone W-2 that use or otherwise benefit from locally conserved water and from the importation and distribution of water from the South Bay Aqueduct. This area also receives an allocation of County taxes. These tax revenues are used to pay for the cost of water, recovery of accumulated overdrafts, control of land surface subsidence, and to sustain the emergency supply of water.

**Zone W-5** is comprised of the entire groundwater basin from Metcalf Road south to the Pajaro River. Charges are levied for all groundwater extracted from this zone.

**Zone W-6** represents the old Gavilan Water Conservation District and is within Zone W-5.

**Water Utility Cost Centers**

Source of Supply Cost Center contains all the anticipated expenditures that relate to obtaining, producing, and protecting a water supply; including all District conservation, recycling, and importation costs.

Raw Water Transmission and Distribution Cost Center contains all expenditures relating to the distribution of raw water. The distribution system consists of pipelines, canals, and percolation ponds and includes the use of creek systems.

Water Treatment Cost Center contains all expenditures associated with the treatment of water at the Rinconada Water Treatment Plant, Penitencia Water Treatment Plant, and Santa Teresa Water Treatment Plant.

Treated Water Transmission and Distribution Cost Center contains all expenditures relating to the distribution of treated water to water utilities and includes costs associated with the treated water reservoirs, pumping plants, pipelines, and turnouts.

Administration and General Cost Center contains all expenditures of an administrative nature which are not assigned to one of the other four cost centers. Work performed in this cost center covers items such as the collection of groundwater charges, financial and cash flow studies, annual reports, and general water quality management, and resource planning.

RESOLUTION NO. 96-82

ADOPTING "WATER UTILITY TAXING AND PRICING POLICY" AND RESCINDING RESOLUTION NO. 71-19

WHEREAS, the Santa Clara Valley Water District (District) adopted a District mission, goals and objectives on February 19, 1985, in order to conduct a sound water management program that serves the community; and

WHEREAS, the District Act authorizes the District to enter into water sales contracts and to levy and collect taxes and assessments on property within the District and in the respective zones of the District and sets forth requirements for groundwater charges and rates between agricultural and nonagricultural water; and

WHEREAS, several Board resolutions, as identified in Exhibit "A," are related to the management of water resources and the implementation of this water taxing and pricing policy; and

WHEREAS, several changes which affect revenue sources and benefit distribution have occurred since adoption of Resolution 71-19. These changes include: (1) the passage of Proposition 13 in 1978 which severely restricted District reliance on property taxes as a long-term source of water utility revenues; (2) the merger with Gavilan Water Conservation District in 1987; (3) delivery of imported water from the federal California Valley Project (CVP) beginning in 1987; (4) the Board's increase in the ratio between agricultural and nonagricultural water rates to beyond 4:1 in 1991, and (5) the occurrence of the drought in the 1990's accentuated the need to plan for water supplies to meet critical dry year needs.

BE IT RESOLVED, by the Board of Directors of the Santa Clara Valley Water District as follows:

1. **The policy of the District in the areas of taxation and water pricing for water utility revenues shall be and is hereby adopted:**

   **Policy Statement**

   The intent of this water utility taxing and pricing policy is to provide revenue for the management of water resources and operation of the water utility enterprise. This policy establishes a framework for establishing a system of water charges as permitted by the District Act to meet revenue requirements and to allocate costs amongst the beneficiaries. The general approach is to charge the recipients of the various benefits for the benefits received from the District's comprehensive water utility program.

   The consumptive and nonconsumptive benefits provided by District water supply facilities and operations are listed and described below:

   - Provision of a water supply and effective management of water resources available to the community from a variety of sources of supply, transmission, and water treatment facilities operated by the District.

   - Protection of water quality through the purification and treatment of water and the protection of water supplies.

- Administration of related programs and projects administered solely by the District or in partnership with another organization.

- Ancillary flood protection.

- Recreation, such as fishing, boating, picnicking, hiking, and other related recreation activities.

- Support for the economic well being of the community.

- Protection of the community infrastructure from subsidence.

## 2. Policy Implementation

The following water taxing and pricing concepts and framework shall be implemented in order to provide for revenue in order to continue providing direct and ancillary benefits to the customers of the District and the community of Santa Clara County.

### Water Taxing and Pricing Concepts

- ***Water Pooling***: Water is considered to be a single commodity irrespective of the water's source or cost. It is a single commodity whether it is from water provided locally, imported, or recycled, and all users benefit from the availability of multiple sources of water.

- ***Water Facilities Cost Pooling***: All water supply facilities contribute to the common benefit of effective water resources management. In general, the water charges and property taxes are based on the common benefits of the capital and operations outlays, rather than reference to named facilities, with the exception of the liability for bonded indebtedness which is applied to each zone of benefit.

- ***Water Resources Management***: Water supplies are managed, through taxing and pricing, to obtain the effective utilization of the water resources of the District to the advantage of the present and future populations of the County. This concept provides for development of taxing and pricing structures that will achieve the effective use of available resources and conserve supplies for potential drought conditions.

- ***Revenue Pooling***: For the most part, water utility revenues are collected in a common fund and not designated for a specific cost. Such revenues are available for the general capital and operating outlays of the water utility enterprise. Some revenues such as certain property taxes are specifically designated for debt service and the fixed costs of the State Water Project, and are not available to the common fund. Water charges are established to provide the revenues that are required in the common fund for general capital and operating outlays and that are over and above revenues from ad valorem taxes, interest, and miscellaneous sources. This provides flexibility in managing continuing operations and funding capital outlays.

**Water Taxing and Pricing Framework**

The following procedures are intended as a general framework to guide staff in the development of a water rate structure implementing this policy:

- ***Zones of Benefit***: Zones of benefit are to be identified and established in accordance with the District Act. Groundwater charges and property taxes are levied for the benefits received by the water users and property owners benefiting from that zone. For each zone, a basic water user charge is determined for current groundwater and raw surface water users to be applied to the quantities of water used or consumed.

- ***Basic Water Charge Zones***: The objective of establishing various water charge zones is to recover costs for the benefits resulting from conservation, import, and recharge of water which occur only within that zone. Water charges are levied for water producing operations, such as groundwater pumping and raw surface water diversion. In addition, users may be subject to specific charges that meet special needs of a group of users, such as water master charges for surface water deliveries, a capital charge for equipment or facilities, and power costs for pumping.

- ***Treated Water Surcharge***: A treated water surcharge shall be added to the basic water charge for the price of treated surface water delivered by the District. The charge is to be established at an amount that would promote the effective use of available water resources.

- ***Costs for Specific Benefits***: Whenever costs associated with specific benefits are clearly and easily measurable, those costs shall be charged to the beneficiaries, in accordance with their specific zones of benefit. Where there is a question as to the identity of the beneficiary or the method of measuring the benefit, the allocation of costs should remain flexible and be determined in accordance with accepted practices and sound judgements based on the four water pricing concepts.

  Both water charges and property taxes are used to recover costs incurred for the benefit of current water users. The costs for future supply sources can be recovered using current revenues or through project specific long-term financing.

- ***Balancing Costs***: The District recognizes that there may be imbalances between revenues and costs within a zone of benefit from year to year. The District will strive to achieve balance over the long term in accordance with the District Act and to properly charge recipients for the benefits received.

- ***Incentives***: Incentives in the form of subsidies may be provided in order to reduce the price of specific sources of water in order to optimize use of available or future water resources.

**3. Executive and Staff Limitations**

District staff are authorized to develop a water rate structure which meets the objectives set forth herein, in accordance with the District Act, and using the concepts set forth above. The District's rate structure is implemented only by resolutions approved by the Board of Directors.

Staff is authorized to recommend water charges for consideration by the Board in accordance with the District Act. Water charges shall be established each year and shall be fixed and uniform rates for agricultural water and for all water other than agricultural water, respectively, except that each such rate for agricultural water shall not exceed one-fourth of the rate for all water other than agricultural water.

In preparing recommended water charges for agricultural users, staff is authorized to consider the open-space benefits that accrue to nonagricultural water users from preserving agricultural lands and include a credit for those benefits in determining agricultural water rates.

Staff is authorized to prepare, for the Board's consideration, resolutions for the collection of property taxes as needed and authorized under applicable laws.

**4. Previous Policy Rescinded**

The "Water Taxing and Pricing Policy," adopted by Resolution 71-19, is hereby rescinded.

PASSED AND ADOPTED by the Board of Directors of Santa Clara Valley Water District on NOV 1 2 1996 by the following vote:

AYES: Directors T. ESTREMERA R.W. GROSS J. JUDGE R.C KAMEI J.J. LENIHAN S. SANCHEZ L. WILSON

NOES: Directors NONE

ABSENT: Directors NONE

SANTA CLARA VALLEY WATER DISTRICT

By: _____
Chair/Board of Directors

ATTEST: LAUREN L. KELLER

_____
Clerk/Board of Directors

## EXHIBIT "A"

## SANTA CLARA VALLEY WATER DISTRICT BOARD RESOLUTIONS USED AS A BASIS FOR WATER TAXING AND PRICING POLICY

**Resolution 68-4** to govern the management of its water supply and water facilities so as to equalize the availability of water throughout the District by every means available to it to the fullest extent consistent with equity and sound conservation principles; and

**Resolution 71-19** adopting "Water Taxing and Pricing Policy;" and

**Resolution 74-28** adopting rules and regulations for the service of surface water and establishing a fee and charge structure; and

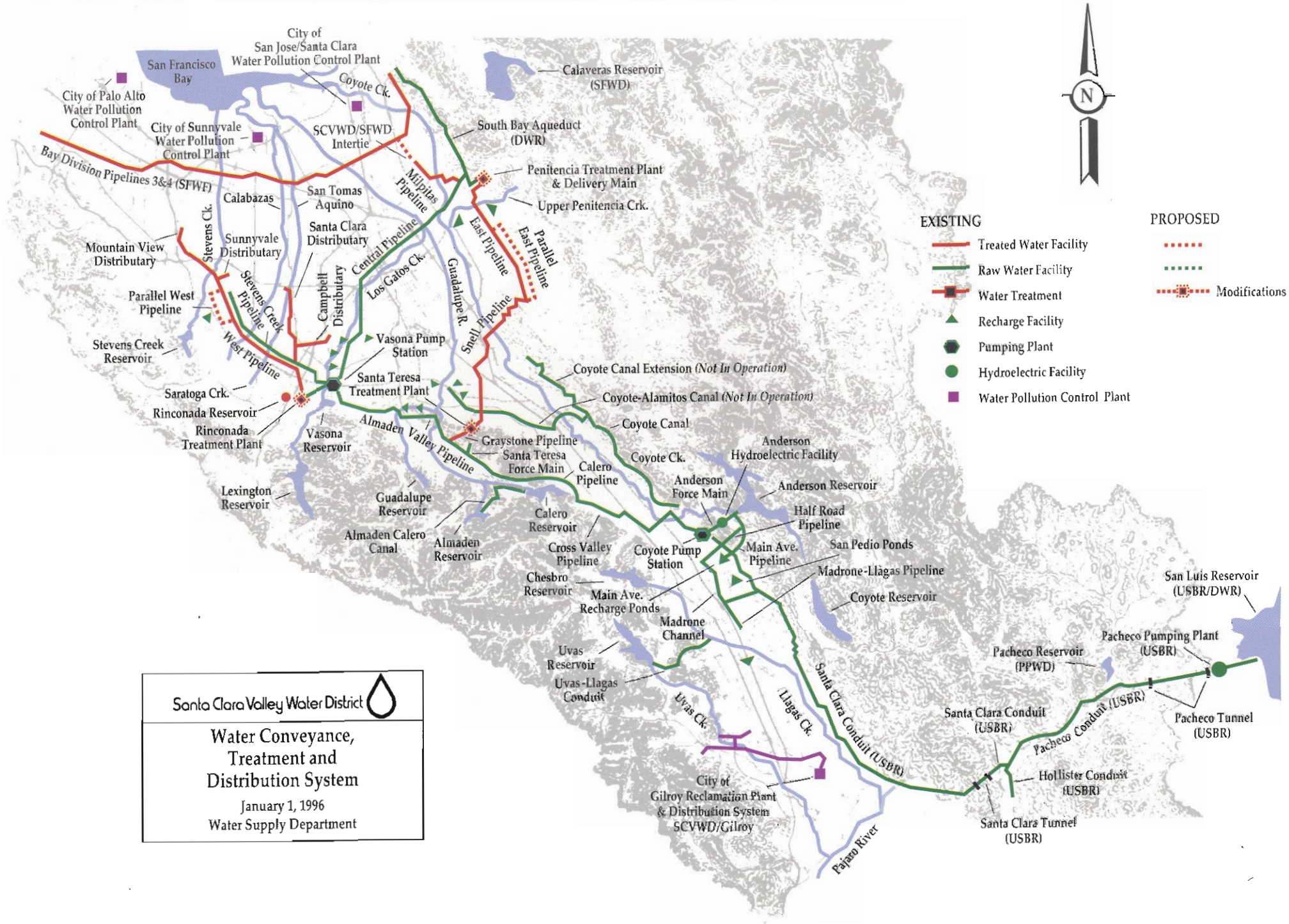
**Resolution 79-87** providing for water importation tax credits and repealing prior resolution which was adopted November 23, 1964.

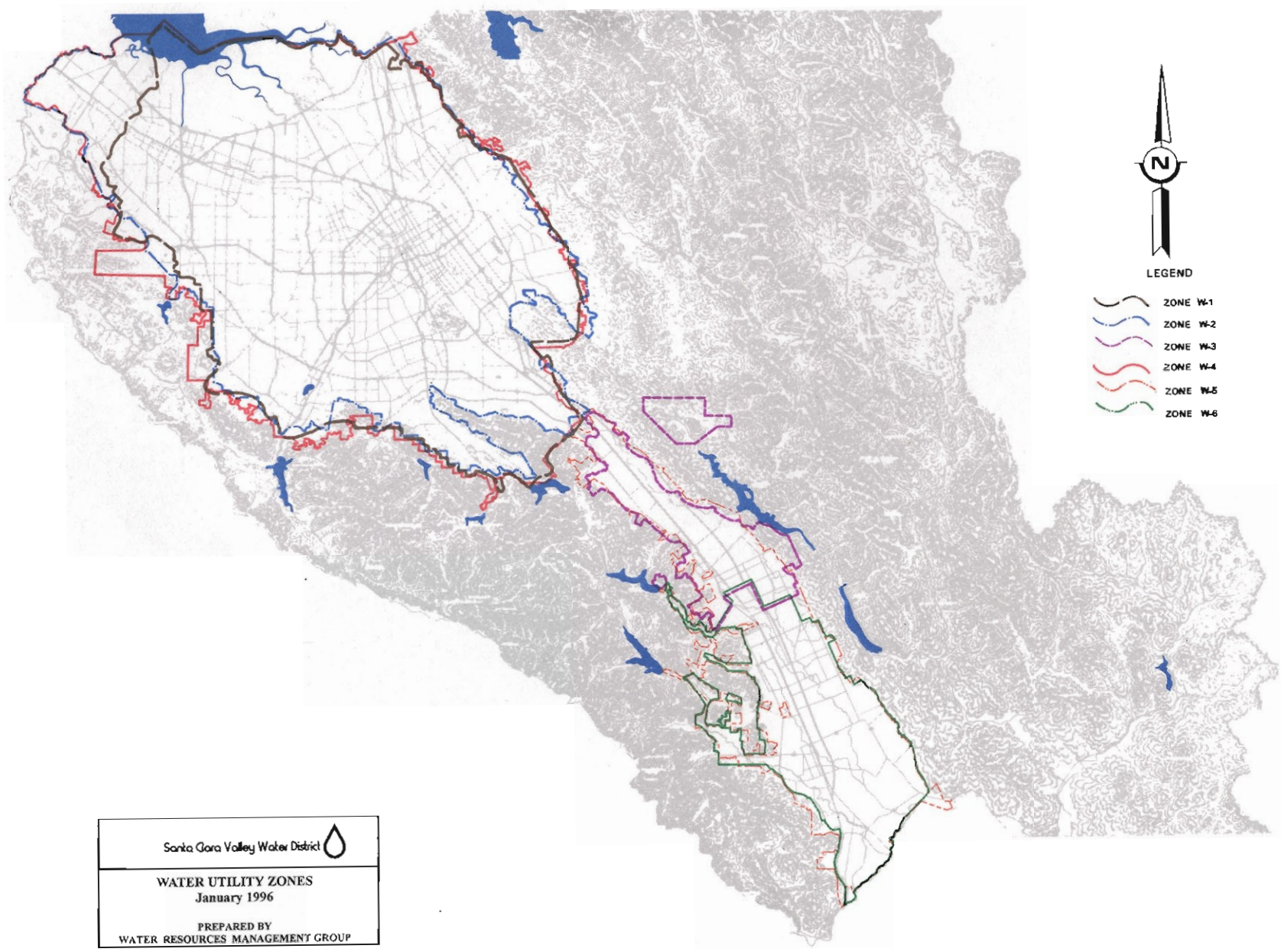
**Resolution 81-44** declaring policy regarding payment of in-county credit for ensuing fiscal years and that no unit rate is provided for the in-county credit and no payments made from and after fiscal year 1983-1984.

**Resolution 90-73** adopting and authorizing the filing and implementation of the Santa Clara Valley Water District Urban Water Management Plan which provides for water conservation efforts which are funded by the District.

# APPENDIX C

# WATER UTILITY FACILITY AND ZONE MAPS


Santa Clara Valley Water District
Water Conveyance, Treatment and Distribution System
January 1, 1996
Water Supply Department
EXISTING
Treated Water Facility
Raw Water Facility
Water Treatment
Recharge Facility
Pumping Plant
Hydroelectric Facility
Water Pollution Control Plant
PROPOSED
Modifications
N
San Francisco Bay
City of San Jose/Santa Clara Water Pollution Control Plant
Coyote Ck.
City of Palo Alto Water Pollution Control Plant
City of Sunnyvale Water Pollution Control Plant
SCVWD/SFWD Intertie
Calaveras Reservoir (SFWD)
South Bay Aqueduct (DWR)
Bay Division Pipelines 3&4 (SFWF)
Penitencia Treatment Plant & Delivery Main
Upper Penitencia Crk.
Milpitas Pipeline
Calabazas
San Tomas Aquino
Stevens Ck.
Sunnyvale Distributary
Santa Clara Distributary
Central Pipeline
East Pipeline
Parallel East Pipeline
Mountain View Distributary
Campbell Distributary
Los Gatos Ck.
Guadalupe R.
Snell Pipeline
Parallel West Pipeline
Stevens Creek Pipeline
West Pipeline
Stevens Creek Reservoir
Vasona Pump Station
Santa Teresa Treatment Plant
Coyote Canal Extension (Not In Operation)
Coyote-Alamitos Canal (Not In Operation)
Saratoga Crk.
Rinconada Reservoir
Rinconada Treatment Plant
Vasona Reservoir
Almaden Valley Pipeline
Graystone Pipeline
Santa Teresa Force Main
Coyote Canal
Coyote Ck.
Anderson Hydroelectric Facility
Calero Pipeline
Anderson Force Main
Anderson Reservoir
Lexington Reservoir
Guadalupe Reservoir
Calero Reservoir
Half Road Pipeline
Almaden Calero Canal
Almaden Reservoir
Cross Valley Pipeline
Coyote Pump Station
Main Ave. Pipeline
San Pedio Ponds
Madrone-Llagas Pipeline
Chesbro Reservoir
Main Ave. Recharge Ponds
Coyote Reservoir
San Luis Reservoir (USBR/DWR)
Madrone Channel
Pacheco Pumping Plant (USBR)
Pacheco Reservoir (PPWD)
Uvas Reservoir
Uvas-Llagas Conduit
Uvas Ck.
Llagas Ck.
Santa Clara Conduit (USBR)
Pacheco Conduit (USBR)
Pacheco Tunnel (USBR)
Santa Clara Conduit (USBR)
Hollister Conduit (USBR)
City of Gilroy Reclamation Plant & Distribution System SCVWD/Gilroy
Santa Clara Tunnel (USBR)
Pajaro River




Santa Clara Valley Water District

WATER UTILITY ZONES
January 1996

PREPARED BY
WATER RESOURCES MANAGEMENT GROUP